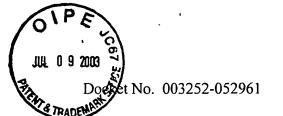
#10



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

George Brainard

Serial No.:

09/853,428

May 10, 2001

Group: 3739

Examiner: Roy Dean Gibson

Filed: For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND

PHOTOTHERAPY

CERTIFICATE OF MAILING (37 C.F.R. SECTION 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the united States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

 $\frac{7}{7}$ $\frac{1}{103}$

Nicole M. Gignac

(type or print name of person mailing paper)

Signature of person mailing paper

MAIL STOP PETITION Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

RECEIVED

ັງບຸ 1 1 2003

OFFICE OF PETITIONS

FURTHER PETITION

Further to the Decision on Petition Dismissing the Petition under 37 C.F.R. 1.137(a) dated February 8, 2002 in the above-identified application, the undersigned submits the following:

- 1. Attached hereto please find a response to the outstanding office action in the above-identified application (Attachment A).
- 2. Secondly, with regard to item 3, noted in the decision on petition, the undersigned notes that in August of 2002, the responsibility for the above-identified application was transferred from Thomas Jefferson University to the undersigned. At that time, the undersigned, or those under his authority and control, reviewed the file and accorded any docketable dates in the firm's computer docket system.

George Brainard

Serial No.: Filed: 09/853,428

May 10, 2001

Group: 3739

Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

A copy of the complete entries for the above-identified application are attached

hereto as attachment B.

3. As can be seen from page 2 of attachment B, the only action due in the above-

identified application is the present response to the Decision on Petition. If the

June 6, 2002 office action was present in the file received by the undersigned, it

would have been noted in this computer record.

4. Additionally, Applicants enclose herewith an unexecuted statement from Anthony

Rowan of Thomas Jefferson University, the assignee of the application, indicating

that he has reviewed the paper record at Thomas Jefferson University and that the

June 4, 2002 office action was not present in their copy of the application file

(Attachment C). An executed copy will follow under separate cover.

In view of light of the above, Applicants respectfully request that the Petition Under 35

C.F.R. 1.137(a) in the above-identified application be granted.

Applicants enclose herewith a three-month extension of time for response to the Decision

to Petition.

Authorization is hereby given to the Commissioner to charge any deficient fees or to

credit any overpayment to account no. 50-0850.

Date:

Respectfully submitted,

Customer No.: 26770

D :10 D :1 (D)1 01005

David S. Resnick (Reg. No. 34,235) NIXON PEABODY LLP

101 Federal Street

Boston, MA 02110

George Brainard

Serial No.:

For:

09/853,428

Filed:

May 10, 2001 Examiner: Roy Dean Gibson

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

A copy of the complete entries for the above-identified application are attached hereto as attachment B.

Group:

3. As can be seen from page 2 of attachment B, the only action due in the above-identified application is the present response to the Decision on Petition. If the June 6, 2002 office action was present in the file received by the undersigned, it would have been noted in this computer record.

4. Additionally, Applicants enclose herewith an unexecuted statement from Anthony Rowan of Thomas Jefferson University, the assignee of the application, indicating that he has reviewed the paper record at Thomas Jefferson University and that the June 4, 2002 office action was not present in their copy of the application file (Attachment C). An executed copy will follow under separate cover.

In view of light of the above, Applicants respectfully request that the Petition Under 35 C.F.R. 1.137(a) in the above-identified application be granted.

Applicants enclose herewith a three-month extension of time for response to the Decision to Petition.

Authorization is hereby given to the Commissioner to charge any deficient fees or to credit any overpayment to account no. 50-0850.

Data

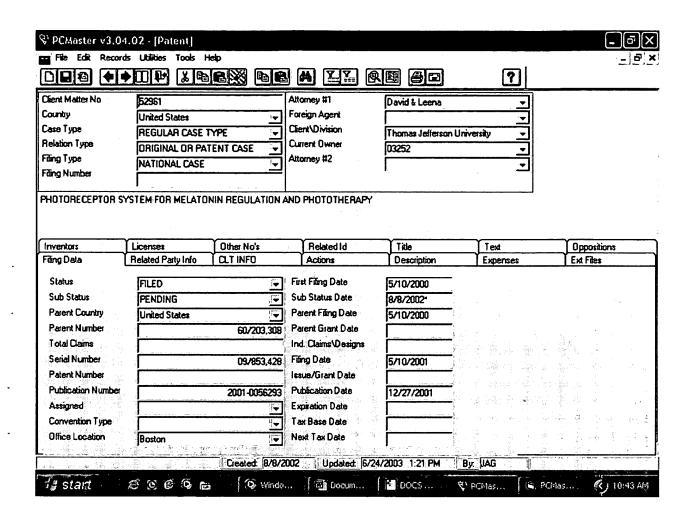
Customer No.: 26770

Respectfully submitted,

David S. Resnick (Reg. No. 34,235)

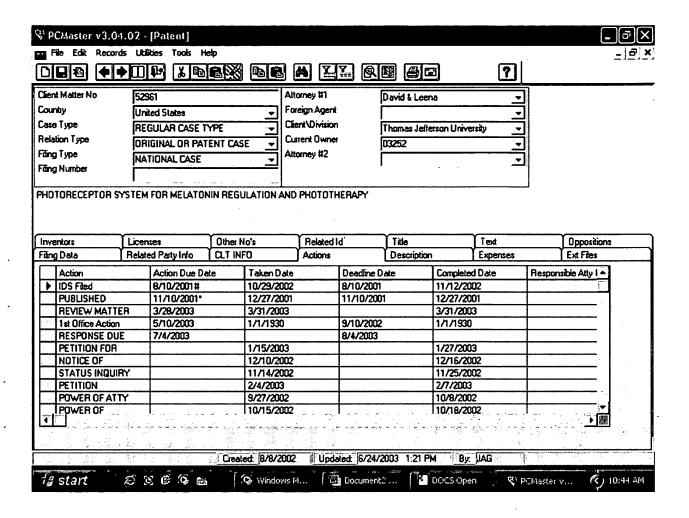
NIXON PEABODY LLP

101 Federal Street Boston, MA 02110 (617) 345-6057

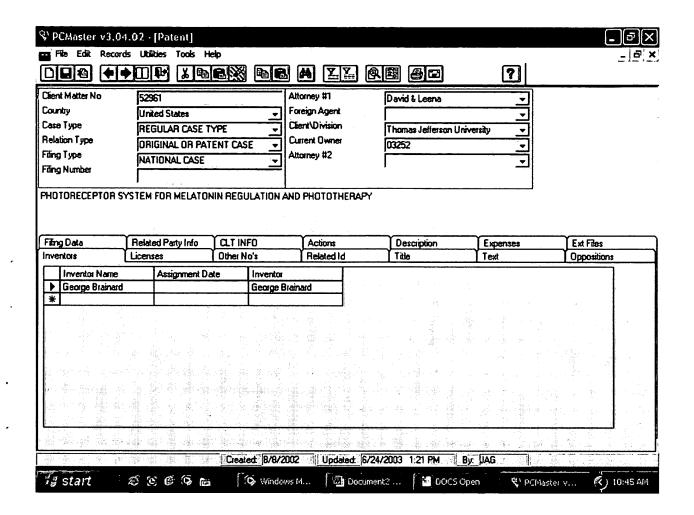


♥ PCMaster v3.0-										<u>_</u>)[#][>
	ds Utilities Tools H	·	പ്പ	ज ला	മെ.	8	a				_ &
Client Matter No Country Case Type Relation Type Fiting Type Fiting Number	52961 United States REGULAR CASE T ORIGINAL OR PAT NATIONAL CASE YSTEM FOR MELATOR	YPE ENT CASE	Fore Curry Alton	iney #1 ign Agent nt\Division ent Owner mey #2		David & Leen Thomas Jeffe 03252	N3	rsity -			
Inventors Filing Data	Licenses Related Party Info	Other No's		Related I	d	Title Description		Text Expenses	}	Oppositions Ext Files	······································
Action RESPONSE DU	Action Due Da E 7/4/2003	ite T	aken Date		Deadline D 8/4/2003	ate	Completed		Respons	ible Atty #1	
		Created	8/8/2002	Upda	Rect 6/24/2	003 1:21 Pi	I Byr	TAG.			
🕼 start	ଅଷ୍ଟ ଓ ଓ		Windows M.	< **.	Document	# The No.	DOCS Oper		CMaster v	R) 1	0:44 AM

Only Action Due



All Actions Ever Taken







PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

George Brainard

Serial No.: Filed:

09/853,428

May 10, 2001

Group: 3739

Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND

PHOTOTHERAPY

CERTIFICATE OF MAILING/TRANSMISSION (37 C.F.R. § 1.8(a) and 1.10)

I hereby certify that this correspondence:

1. Transmittal Form (1 pg.);

- 2. Copy Decision mailed July 31, 2003 Paper No. 13 (3 pp.);
- 3. Renewed Petition Under 37 C.F.R. 1.137 (2 pp.);
- 4. Statement from Anthony Rowan (2 pp.);
- 5. Exhibit A Complete Copy of File Maintained under Mr. Rowan at Thomas Jefferson University Office of Technology;
- 6. Return Receipt Postcard;

is on the date shown below being:

MAILING

Date: September 22, 2003

X deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22202 **FACSIMILE**

transmitted by facsimile to the Patent and Trademark Office.

Nicole M. Gignac

(type or print name of person certifying)

RECEIVED

SEP 2 6 2003

OFFICE OF PETITIONS

BOS1310726.1

PTO/SB/21 (08-03) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. **Application Number** 09/853,428 **TRANSMITTAL** Filing Date May 10, 2001 **FORM** First Named Inventor George Brainard Art Unit (to be used for all correspondence after initial filing) 3739

Examiner Name

Total Number of Pages in This Submission

Attorney Docket Number

Roy Dean Gibson

003252-052961

			EN	CLOSURES (Check all that appl	y)				
	Fee Trans	smittal Form		Drawing(s)	11 1	After Allowato Group	ance Communication		
	Fee Attached Amendment/Reply After Final Affidavits/declaration(s) Extension of Time Request Express Abandonment Request Information Disclosure Statement			Licensing-related Papers Renewed Petition Petition to Convert to a Provisional Application Power of Attorney, Revocation Change of Correspondence Address Terminal Disclaimer Request for Refund CD, Number of CD(s)	Appeal Communication to Board of Appeals and Interferences Appeal Communication to Group (Appeal Notice, Brief, Reply Brief) Proprietary Information Status Letter Other Enclosure(s) (please Identify below): Copy - Decision; Statement from A. Rowan; Exhibit A; Cert. of Mail; Return Receipt Postcard.				
Certified Copy of Priority Document(s) Response to Missing Parts/ Incomplete Application Response to Missing Parts under 37 CFR 1.52 or 1.53			The Commissioner is authorized to charge the NIXON PEABODY LLP Deposit Account No. 50-0850 for fees associated with this submission.						
		SIGNA	TURE	OF APPLICANT, ATTORNEY, O	OR AGE	NT			
Firm or Individ Signati	ual name ure	David S. Resnick (NIXON PEABOD		No. 34,235) P, 101 Federal Street, Boston, I	MA 021	10			
Date		0 0 0	7						
Date	9/22/03								
	CERTIFICATE OF TRANSMISSION/MAILING								
sufficie	ent postage	at this correspondence is be as first class mail in an en elow.Washington, DC 2023	velope a	esimile transmitted to the USPTO or depo addressed to: Commissioner for Patents, s date:	sited with P.O. Box	the United 3 1450, Alexa	States Postal Service with Indria, VA 22313-1450 on		
Typed	or printed i	name Nicole M. G	ignac						
Signat	ure	Micho	7	(Hinner)		Date	September 22, 2003		

This collection of information is required by 37 CFR 1.5. The information is equired to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

RECEIVED

ATTACHMENT A



PATENT # 1/A

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

George Brainard

Serial No.:

09/853,428

Group: 3739

Filed:

May 10, 2001

Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND

PHOTOTHERAPY

CERTIFICATE OF MAILING (37 C.F.R. SECTION 1.8(a))

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the united States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to MAIL STOP PETITION, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

7/7/03

NICOIC M. Granac type or print name of person-mailing,paper

(Signature of person mailing paper,

MAIL STOP PETITION Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

RECEIVED

JUL 1 1 2003

OFFICE OF PETITIONS

<u>AMENDMENT</u>

In response to the Office Action of June 6, 2002, please amend the above-identified application as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page of this paper.

George Brainard

Serial No.:

09/853,428

Filed:

Group: 3739 Examiner: Roy Dean Gibson May 10, 2001

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

In The Claims

Claim 1 (currently amended) A method of treating or preventing a light responsive disorder in a mammal, comprising administration of a therapeutically effective amount of light to said mammal, said light being generated by a light system, wherein said light system emits a balance of wavelengths to stimulate a circadian, photoneural, or neuroendocrine system of said mammal, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 = 435 - 488 nm.

(original) The method of Claim 1, wherein said light responsive disorder is at least Claim 2 one of the group of seasonal affective disorder (SAD), a sleep disorder, circadian disruption, eating disorders, menstrual cycle disorders, non-specific alerting or performance deficits, hormone-sensitive cancers, or cardiovascular disorders.

(currently amended) A method of minimizing circadian and neuroendocrine Claim 3 stimulation or distruption treating a light responsive disorder in a mammal, comprising administration of a therapeutically effective amount of light to said mammal, said light being generated by a light system, wherein said light system excludes emission of a balance of wavelengths to stimulate a circadian, photoneural, or neuroendocrine system of said mammal, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 435 - 488 nm.

Claim 4 (canceled)

Claim 5 (currently amended) A light system, comprising at least one light source, said light source emitting a balance of wavelengths to stimulate a mammalian circadian, photoneural, or neuroendocnne system, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 = 435 - 488 nm.

Claim 6 (currently amended) A light system, comprising at least one light source, said light source excluding emission of a balance of wavelengths to stimulate a mammalian

George Brainard

Serial No.:

09/853,428

Filed:

May 10, 2001

For:

Group: Examiner: Roy Dean Gibson PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

3739

circadian, photoneural, or neuroendocrine system, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 435 - 488.

Claim 7 (canceled)

Claim 8 (canceled)

Claim 9 (canceled)

Claim 10 (canceled)

Claim 11 (currently amended) A method of treating a light responsive disorder in a mammal, comprising administration of a therapeutically effective amount of light to said mammal, said light being generated by a light system, wherein said light system comprises at least one light source and at least one transparent material component, said light source emitting light through said transparent material component, said transparent material component comprising at least one light filtering component, said light filtering component specifically transmitting a balance of wavelengths to stimulate a circadian, photoneural, or neuroendocrine system of said mammal, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 435 - 488 nm.

- Claim 12 (original) The method of Claim 11, wherein said light responsive disorder is at least one of the group of seasonal affective disorder (SAD), a sleep disorder, circadian disruption, eating disorders, menstrual cycle disorders, non-specific alerting or performance deficits, hormone-sensitive cancers, or cardiovascular disorders.
- (currently amended) A method of treating a light responsive disorder in a mammal, Claim 13 comprising administration of a therapeutically effective amount of light to said mammal, said light being generated by a light system, wherein said light system comprises at least one light source and at least one translucent material component, said light source emitting light through said translucent material component, said

George Brainard

Serial No.:

09/853,428

Filed:

For:

Group: 3739 Examiner: Roy Dean Gibson May 10, 2001

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

translucent material component comprising at least one light filtering component, said light filtering component specifically transmitting a balance of wavelengths to stimulate a circadian, photoneural, or neuroendocrine system of said mammal, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 435 - 488 nm.

Claim 14 (original) The method of Claim 13, wherein said light responsive disorder is at least one of the group of seasonal affective disorder (SAD), a sleep disorder, circadian disruption, eating disorders, menstrual cycle disorders, non-specific alerting or performance deficits, hormone-sensitive cancers, or cardiovascular disorders.

(original) A method of treating a light responsive disorder in a mammal, comprising Claim 15 administration of a therapeutically effective amount of light to said mammal, said light being generated by a light system, wherein said light system comprises at least one light source and at least one transparent material component, said light source emitting light through said transparent material component, said transparent material component comprising at least one light filtering component, said light filtering component specifically blocking a balance of wavelengths to stimulate a circadian, photoneural, or neuroendocrine system of said mammal, said balance of wavelengths having a peak sensitivity ranging from 425 - 505 nm.

Claim 16 (canceled)

(currently amended) A method of minimizing circadian and neuroendocrine Claim 17 stimulation or distruption treating a light-responsive disorder in a mammal, comprising administration of a therapeutically effective amount of light to said mammal, said light being generated by a light system, wherein said light system comprises at least one light source and at least one translucent material component, said light source emitting light through said translucent material component, said

George Brainard

Serial No.: Filed:

09/853,428

May 10, 2001

Group: 3739

For:

Examiner: Roy Dean Gibson PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

translucent material component comprising at least one light filtering component, said light filtering component specifically blocking a balance of wavelengths to stimulate a circadian, photoneural, or neuroendocrine system of said mammal, said balance of wavelengths having a peak sensitivity ranging from 425 - 5055 505 nm.

Claim 18 (canceled)

Claim 19 (canceled)

George Brainard

Serial No.:

09/853,428

Filed:

May 10, 2001

Group:

3739 Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

REMARKS/ARGUMENTS

The present invention relates to Applicant's surprising discovery that human melatonin suppression peaks between 435-488 nm (fig. 11) and that by exposing patients to these wavelengths, light responsive disorders can be treated. Conversely, Applicant has discovered that exposing a patient to light in which these wavelengths have been excluded minimizes circadian and neuroendocrine stimulation or disruption. For example, in other words, exposure to light in which these wavelengths have been excluded will allow one to fall a sleep, while exposure to these wavelengths will stimulate wakefulness.

The claims have been amended to further define the present invention and expedite prosecution. Specifically, claims 4, 7 - 10, 16, and 18 - 19 have been canceled. The remainder of the claims have been amended to recite that the peak sensitivity ranges from 435 – 488nm. Support can be found in Figure 11. The sensitivity range from 435-488 nm relates to the top 25% sensitivity for human melatonin suppression peaks between 435 and 488 nm, as is illustrated in Figure 11 of the present application. Figure 11 describes a spectrally weighted function that is specifically distinct from previously described functions for human day and night vision^{1 2} as well as other light driven photobiological responses³. No new matter has been added by the amendments to the claims.

¹ COMMISSION INTERNATIONALE DE L'ECLAIRAGE: Guide on Interior Lighting, CIE Publication No. 29.2, Vienna, pp. 1 – 113, 1986.

² ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA, ed.: Lighting Handbook: Reference & Application, Illuminating Engineering Society of North America, New York, pp. 1 - 989, 1993.

³ ILLUMINATING ENGINEERING SOCIETY RP-27.1 Photobiological Safety for Lamps and Lamp Systems - General Requirements, 1995.

George Brainard

Serial No.:

09/853,428

May 10, 2001

3739 Group:

Filed:

Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

Claims 3 – 4 and 15 - 18 stand rejected under 35 U.S.C. 112, second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Applicant respectfully submits that the amendments to claims 3 and 15 have obviated this rejection which should therefore be withdrawn. In order to expedite prosecution, claims 4 and 16 – 18 have been canceled. Accordingly, the rejection has been obviated and should be withdrawn.

Claims 1, 2, 5 and 11 - 14 stand rejected under 35 U.S.C. 102(b) as being anticipated by Waldman (5,447,527).

Applicant respectfully disagrees and request that this rejection be withdrawn for the following reasons.

As noted above, the claims now recite a range is from 435 – 488 nm and thus no longer overlap Waldman.

In light of the above and the amendments to the claims, Applicants respectfully requests that the rejection be withdrawn.

Claims 6, 9 and 10 stand rejected under 35 U.S.C. 102(b) as being anticipated by Fujishima et al. (5,855,595).

Applicant respectfully submits that claim 6 specifically excludes the wavelengths from 435-488 nm. This is not taught or suggested by the cited reference and thus there can be no anticipation. Accordingly, Applicant requests that the rejection be withdrawn.

Claims 7 and 8 stand rejected under 35 U.S.C. 102(b) as being anticipated by Girerd (5,083,858).

George Brainard

Serial No.:

09/853,428

Filed:

May 10, 2001 Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

Group:

3739

Applicant respectfully disagrees and request that this rejection be withdrawn for the following reasons.

In light of the cancellation of claims 7 and 8, the rejection has been obviated and should be withdrawn.

Claim 19 stands rejected under 35 U.S.C. 102(b) as being anticipated by Hegyi (5,235,178).

Applicant respectfully disagrees and request that this rejection be withdrawn for the following reasons.

In light of the cancellation of claim 19, the rejection has been obviated and should be withdrawn.

In light of the above and the amendments to the claims, Applicants respectfully requests that the rejection be withdrawn.

Claims 1, 2 and 5 stand rejected under 35 U.S.C. 102(e) as being anticipated by Goldman (5,923,398).

Applicant respectfully disagrees and request that this rejection be withdrawn for the following reasons.

As noted above, the claims now recite a range from 435 – 488 nm and thus no longer overlap Goldman.

In light of the above and the amendments to the claims, Applicant respectfully requests that the rejection be withdrawn.

George Brainard

Serial No.:

09/853,428

Filed:

For:

Group: 3739

May 10, 2001 Examiner: Roy Dean Gibson PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

In view of the above and foregoing, it is respectfully submitted that the claims now on file are believed to be in condition for allowance, and prompt and favorable action is earnestly solicited. Should there be any question concerning this response or the application in general, the Examiner is respectfully urged to telephone the undersigned so that prosecution of this application may be expedited.

Authorization is hereby given to the Commissioner to charge any deficient fees or to credit any overpayment to account no. 50-0850.

Respectfully submitted,

Customer No.: 26770

David S. Resnick (Reg. No. 34,235)

NIXON PEABODY LLP

101 Federal Street Boston, MA 02110 (617) 345-6057





PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

George Brainard

Serial No.:

09/853,428

Group: 3739

Group. 3739

Filed:

May 10, 2001

Examiner: Roy Dean Gibson

For:

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND

PHOTOTHERAPY

CERTIFICATE OF FACSIMILE

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being faxed to the attention of Joyce Riley at the U.S. Patent and Trademark Office, Washington, D.C. 2023.

7/7 103

Nicole M. Gignac

(type or print name of person mailing paper)

signature of person mailing paper

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

STATEMENT FROM ANTHONY ROWAN

- I, Anthony Rowan, state as follows:
- 1. I am a licensing assistant in the Office of Technology Transfer at Thomas Jefferson University, the assignee of the above-identified application;
- 2. I have reviewed the physical file of the above-identified application that is in our office;
- 3. The Office Action mailed June 6, 2002 is not in this file;
- 4. The computer records relating to this application are not accessible to our office;

George Brainard

Serial No.:

09/853,428

Filed: For:

Group: 3739 Examiner: Roy Dean Gibson May 10, 2001

PHOTORECEPTOR SYSTEM FOR MELATONIN REGULATION AND PHOTOTHERAPY

5. I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application and any patents issuing thereon.

Date:	 				
	Anthony Rowan				